In the claims:

Following is a complete set of claims as amended with this Response.

1. (Currently Amended) A large scale integrated circuit (IC) comprising:

an optical input port;

a light sensing device optically coupled to the optical input port to produce a signal in response to sensing light at the optical input port;

an optic function subcircuit integrated on the IC and ~~optically~~ coupled to the light sensing device ~~optical input port~~ to provide an interface between the light sensing device ~~optical input port~~ and communications circuitry of the IC; and

a switch integrated on the IC and connected to the light sensing device and to the optic function subcircuit to activate the optic function subcircuit when light is sensed.

2. (Currently Amended) The circuit of Claim 1 wherein the light sensing device is a phototransistor ~~and wherein the phototransistor is further coupled to the optic function subcircuit~~.

3. (Previously Presented) The circuit of Claim 1 wherein the optic function subcircuit is an optical modulator that is not powered until activated by the switch.

4. (Previously Presented) The circuit of Claim 1 wherein the optic function subcircuit is an optical receiver that is not powered until activated by the switch.

5. (Original) The circuit of Claim 1 further comprising a light sensing circuit between the light sensing device and the switch for amplifying and conditioning the light sensing signal.

6. (Original) The circuit of Claim 5 wherein the light sensing circuit comprises a current mirror to detect the sensing signal and an amplifier to amplify the detected sensing signal.

7. (Original) The circuit of Claim 1 wherein the switch comprises a logic gate coupled to the light sensing device and to an input to the optic function subcircuit to alternately enable and disable the input to the optic function subcircuit.

8. (Previously Presented) The circuit of Claim 7 wherein the input to the optic function subcircuit activates a power supply of the optic function subcircuit.

9. (Previously Presented) The circuit of Claim 7 wherein the input to the optic function subcircuit is a clock input to the optic function subcircuit.

10 - 13. (Canceled)

14. (Currently Amended) A method comprising:

receiving light at a light sensing device ~~an optical input/output port~~ of an integrated circuit (IC);

generating a light sensing signal in the IC in response to the received light ~~at the optical input/output port~~;

activating a switch integrated in the IC in response to the light sensing signal to activate an optic function subcircuit that is integrated in the IC to provide an interface between the light sensing device ~~received at the optical input/output port~~ and communications circuitry of the IC.

15. (Currently Amended) The method of Claim 14 wherein receiving light comprises receiving data signals as light directed at the light sensing device ~~optical input/output port~~.

16. (Original) The method of Claim 14 wherein generating a light sensing signal comprises amplifying and conditioning a photodetector output to remove short term transients.

17. (Original) The method of Claim 14 wherein activating a subcircuit comprises enabling a clock circuit.

18. (Original) The method of Claim 14 wherein activating a subcircuit comprises providing an enable signal to an enable port of the subcircuit.

19. (Original) The method of Claim 14 wherein activating a subcircuit comprises enabling a power supply to the subcircuit.

20. (Previously Presented) A large scale integrated circuit (IC) comprising:

a light sensing device to produce a sense signal in response to sensing light;

a low power light sensing circuit integrated on the IC substrate coupled to the light sensing device and maintained in an active state to amplify and condition the sense signal;

an optical modulator integrated on the IC substrate and maintained in a minimum power state;

a photodetector coupled to the light sensing device to provide received optical signals to the light sensing device for sensing and coupled to the optical modulator to provide received optical signals to the modulator for demodulation;

a switch integrated on the IC substrate connected to the light sensing circuit to receive the sense signal from the light sensing device and connected to the optical modulator to produce an enable signal to activate the optical modulator from a minimum power disabled state to a powered enabled state when light is sensed by the light sensing device.

21. (Previously Presented) The circuit of Claim 20 wherein the received optical signals comprise data signals.

22. (Original) The circuit of Claim 20 wherein the optical modulator is coupled to an optical receiver.

23. (Original) The circuit of Claim 20 wherein the light sensing circuit comprises a current mirror to detect the sensing signal and an amplifier to amplify the detected sensing signal.

24. (Original) The circuit of Claim 20 wherein the switch comprises a logic gate coupled to the light sensing device and to an input to the optic function subcircuit to alternately enable and disable an input to the optical modulator.

25. (Original) The circuit of Claim 20 wherein the switch is connected to couple a power supply to the optical modulator.

26. (Original) The circuit of Claim 20 wherein the switch is connected to enable a clock input to the optical modulator.

27. (Currently Amended) A circuit comprising:

a photodetector integrated on a large scale integrated circuit (IC), the photodetector generating a photodetector output signal in response to light;

a light sensing circuit coupled to the photodetector, integrated on the IC ~~substrate~~ and maintained in an active state to amplify and condition the photodetector output signal;

an optical modulator coupled to the photodetector, integrated on the IC ~~substrate~~ and maintained in an inactive state to modulate the photodetector output signal for other circuits;

a switch integrated on the IC ~~substrate~~ coupled to the light sensing subcircuit to receive thes photodetector output signal and produce an enabling signal to activate the optical modulator in response to detection of a signal from the light sensing circuit.

28. (Previously Presented) The circuit of Claim 27 wherein the switch is connected to the optical modulator and to a clock signal of the optical modulator so that the clock signal is supplied to the optical modulator when the photodetector detects light.

29. (Previously Presented) The circuit of Claim 27 wherein the switch comprises a transistor coupled across a power supply to the optical modulator, the transistor having a gate connected to the photodetector so that the power supply is enabled when the photodetector detects light.